

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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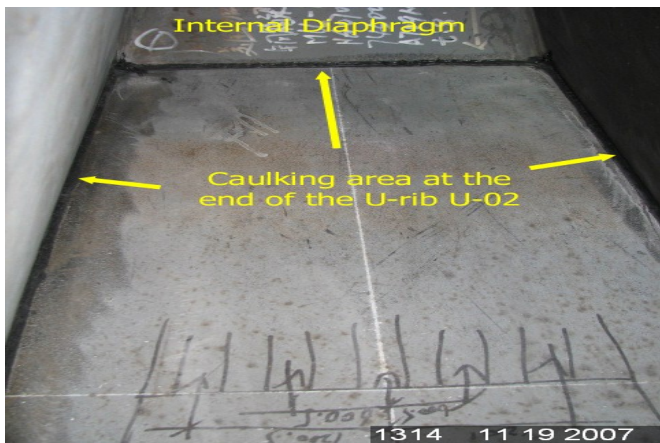
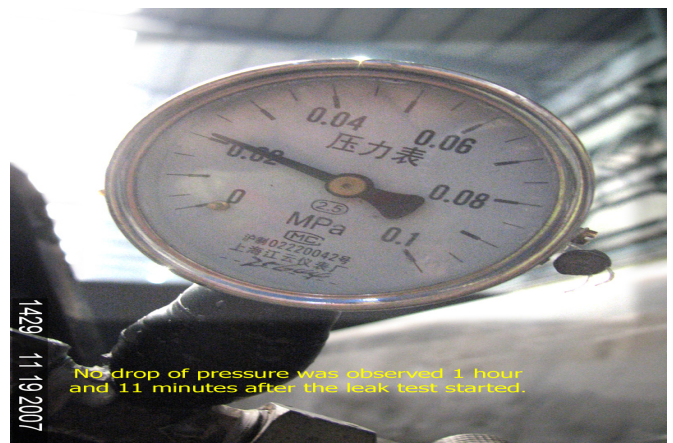
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000913**Date Inspected:** 19-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lefeng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Mock-up and OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item Description	WBS	Dwg No.	Status
1 OBG Mock-up deck plate Leak Test			
The QA inspector was at approximately 0800 hours in ZPMC Bay # 1 for the OBG Mock-up leak test scheduled on this date. The test was postponed according with ZPMC due to air leakage at the coupling on the 13,158 meters U-rib U-01. Later, ZPMC resolved to continue the air leak test on the next U-rib U-02 without repairing the air leakage on U-01. ZPMC pressurized the U-rib U-02 at approximately 1318 hours at 0.2 bars and no drop of pressure was noted at the end of the QA inspector shift. The photographs below depict the temperature and pressure measured by ZPMC, and others photos taken during the test.			

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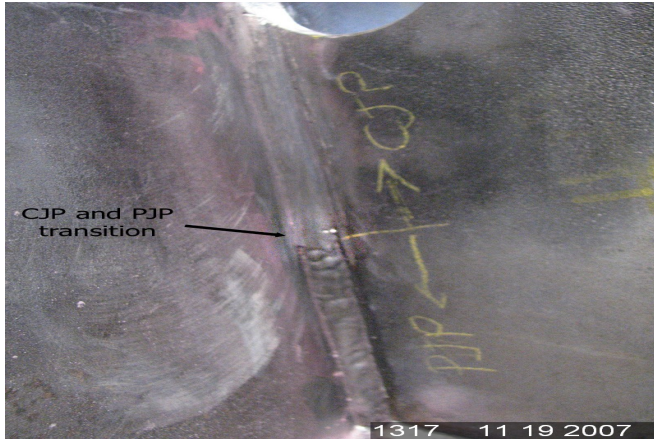


2 OBG Mock-up deck plate Magnetic particle testing (MT)

The QA inspector observed ZPMC performing MT at the junction of the U-ribs to the external diaphragm. The photographs below show ZPMC performing MT at the weld terminations (there are limited accessibility for the MT yoke at the ground areas).

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3 Procedure qualification record (PQR)

The QA inspector was at the ZPMC PQR testing lab performing random verifications of the welding consumables, base metal and dimensional inspections for the PQR test coupons designated as HP2007259 (Flux cored arc welding (FCAW)-1G position-A709-345 grade-26 mm thick) and HP2007261 (Shielded Metal arc welding (SMAW)-2F position-A709M-HPS-485W- 90mm thick). The QA inspector found that the welding consumables, base metal and dimensions appeared to be in compliance with contract documents. The QA inspector gave instruction to Caltrans QA inspector Dan Hernandez before Mr. Dan Hernandez started witnessing the PQR testing. The QA inspector had a conversation with ZPMC representative Huang Wei. The QA inspector asked for the lot # used on the electrodes for SMAW process. Mr. Huang Wei relayed that boxes containing the lot # had been discarded.

The QA inspector had a conversation with Senior Task Leader Dave McClary. The QA inspector asked if ZPMC could proceed welding the PQR HP2007261 undermatch for fillet testing with electrode E-7018-1 with a container that does not have a lot # from the manufacturer. Mr. Dave McClary relayed that this issue was addressed before and that the electrodes E-7018-1 would be acceptable to use for a PQR testing on a fillet weld.

4 Visual Inspection to the OBG Deck Plate Mock-up

The QA inspector was performing visual inspection of the weld overlap using the light leak technique to verify questionable areas where the weld protrude more 90 degrees from the toe of the weld. The QA inspector assisted to Caltrans Task Leader Robert Cuellar on the overlap verifications.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer